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10/754,938	01/12/2004	Simon Robert Walmsley	PEA26US	7678

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BALMAIN, 2041
AUSTRALIA

EXAMINER	
ALMEIDA, DEVIN E	
ART UNIT	**PAPER NUMBER**
2132	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/754,938	WALMSLEY, SIMON ROBERT	
	Examiner	Art Unit	
	Devin Almeida	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the papers filed 8/142/2007. Claims 1-25 were received for consideration.

Response to Arguments

Applicant's arguments, with respect to 35 U.S.C. 112, second paragraph have been fully considered and are persuasive. The 35 U.S.C. 112, second paragraph rejection of claim 1 has been withdrawn.

Applicant's arguments with respect to claim 1 have been fully considered but they are not persuasive. The recitation "a method of passing validated information along a series of entities, the series of entities including a source entity, at least one intermediate entity, and a target entity, wherein each of the entities shares a validation parameter with its immediately neighboring entity or entities in the series, the method comprising the steps, commencing in the source entity" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

According to the claims the current entity only has to generating a validation code for the information, the validation code being based on the validation parameter shared

between the current entity and a next entity in the series; (b) outputting the validation code; (c) receiving the validation code in the next entity in the series and making that entity the current entity; (d) verifying the information via the validation code in the current entity using the validation parameter required to verify it (see figure 4A step 129 the printer checks to is id the hash values match). Since the last intermediate entry is the personal computer it only has to pass the data once to the target entity the printer and (f) receiving the validation code in the target entity and verifying the information via the validation code and the validation parameter required to verify it. See rejection below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1-7, and 17-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiegley (U.S. Patent # 6,711,677). With respect to claim 1, a method of passing validated information along a series of entities, the series of entities including a source entity, at least one intermediate entity, and a target entity, wherein each of the entities shares a validation parameter with its immediately neighboring entity or entities in the

series, the method comprising the steps, commencing in the source entity, of: (a) in a current entity (see figure 2 element 12 Personal Computer), generating a validation code for the information (see figure 4A and 4B i.e. hash value of the print data), the validation code (see figure 4A i.e. the session key and the public key of the printer) being based on the validation parameter (see figure 4A i.e. the session key and the public key of the printer) shared between the current entity and a next entity in the series (see figure 1 element 10 Printer); (b) outputting the validation code (see figure 4A and 4B step 114 and 115 the computer client sends the session key encrypted with the printer's public key and the hash of the print data encrypted with the session key to the printer); (c) receiving the validation code in the next entity in the series and making that entity the current entity (see figure 4A and 4B the printer receives the session key encrypted with the printer's public key and the hash of the print data encrypted with the session key to the printer); (d) verifying the information via the validation code in the current entity using the validation parameter required to verify it (see figure 4A step 129 the printer checks to is id the hash values match); (e) repeating steps (a) to (d) until the last intermediate entity (see figure 2 element 12 Personal Computer) in the series has output the validation code it generated (see figure 4A and 4B step 114 and 115 the computer client sends the session key encrypted with the printer's public key and the hash of the print data encrypted with the session key to the printer); (f) receiving the validation code in the target entity (see figure 1 element 10 Printer) and verifying the information via the validation code and the validation parameter required to verify it (see figure 4A and 4B the printer receives the session key encrypted with the printer's public

key and the hash of the print data encrypted with the session key to the printer and verifies the data based on the hash value).

With respect to claim 2 wherein step (b) includes the substep of outputting the information (see figure 4A and 4B step 116 and 118 the printer client sends the print data to printer).

With respect to claim 3, wherein step (f) includes receiving the information and using it during the verification (see figure 4A and 4B step 116 and 118 the printer client sends the print data to printer and hash the print data to verify that the hashes match).

With respect to claim 4, wherein step (c) includes receiving the information and using it during the verification (see figure 4A and 4B step 116 and 118 the printer client sends the print data to printer and hash the print data to verify that the hashes match).

With respect to claim 5, further including a controller in contact with at least some of the entities, the controller being configured to pass the information and/or the validation codes between adjacent entities in the series (see figure 2 and column 3 lines 41-61).

With respect to claim 6, wherein step (a) is performed in response to an instruction issued by the controller (see figure 2 and column 3 lines 41-61).

With respect to claim 7, wherein the instruction includes a request for the information upon which the validation is to be performed (see figure 2 and column 3 lines 41-61).

With respect to claim 17, wherein a different validation parameter is used for the validation step performed at any two adjacent entities (see figure 4A and 4B the session key is generate each time date is transmitted to the printer).

With respect to claim 18, wherein at least one of the entities is an integrated circuit (see figure 2 element 18, 20 and 22 and column 3 lines 41-61).

With respect to claim 19. A method according to claim 1, wherein the target entity is a printer controller integrated circuit (see figure 2 element 22 and column 3 lines 41-61).

With respect to claim 20, wherein the source entity is a printer controller integrated circuit (see figure 2 element 18 and 20 and column 3 lines 41-61).

With respect to claim 21, wherein either the source entity (see figure 2 element 12 personal computer) or the target entity (see figure 2 element 10 i.e. printer) is a printer controller integrated circuit (see figure 2 element 18, 20 and 22 and column 3 lines 41-61) and the at least one intermediate entity is a verification chip associated with the printer controller (see figure 2 element 20 and column 3 lines 41-61).

With respect to claim 22, wherein the controller is a printer controller integrated circuit (see figure 2 column 3 lines 41-61).

With respect to claim 23, where one of the entities is the controller (see figure 2 column 3 lines 41-61).

With respect to claim 24, wherein the printer controller has a relatively unique identity and the verification chip includes a key based on the unique identity (see figure 4A and 4B the private key of the printer).

With respect to claim 25, wherein the source or target entity is an integrated circuit associated with a package that contains ink (see figure 2 element 20 and figure 4B column 3 lines 41-61).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiegley (U.S. Patent # 6,711,677) in view of Schneier Applied Cryptography Protocols, Algorithms and Source Code in C. With respect to claim 8 Wiegley teaches everything with respect to claim 1 above but does not teach wherein the validation code is a digital signature produced by a digital signature function using the information and the validation parameter as operands. Schneier teaches that the validation code is a digital signature produced by a digital signature function using the information and the validation parameter as operands (see Schneier page 37-38). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have digital signed the information with the senders private key. This makes it so the receiver can verify who sent the information by decrypting the information with the sender's public key (see Schneier page 37-38). Therefore one would be motivated to have digital signed the information.

With respect to claim 9, wherein the validation parameter is a key (see figure 4A i.e. the session key and the public key of the printer).

With respect to claim 10, wherein the key is a symmetric key (see figure 4A i.e. the session key and the public key of the printer).

With respect to claim 11, wherein the validation parameter is an asymmetric key-pair, and the public and private components of the key-pair are in respective neighboring entities in the series (see figure 4A i.e. the session key and the public key of the printer).

With respect to claim 12, wherein the validation code is a digital signature (see Schneier page 37-38) generated with a digital signature function using the key or key-pair component (see figure 4A i.e. the session key), the information (see figure 4A i.e. the print data) and at least one nonce as inputs (see figure 4A i.e. the session key).

With respect to claim 13, wherein the at least one nonce is generated in the current entity in response to an instruction issued by the neighboring entity of the current entity closer to the target entity (see figure 4A i.e. the session key).

With respect to claim 14, wherein the at least one nonce is randomly, pseudo-randomly or arbitrarily generated number (see figure 4A i.e. the session key and column 4 lines 47-52).

With respect to claim 15, wherein the at least one nonce is supplied to the current entity in an instruction issued by the neighbouring entity of the current entity closer to the target entity (see figure 4A i.e. the session key).

With respect to claim 16, wherein the nonce is randomly, pseudo-randomly or arbitrarily generated number (see figure 4A i.e. the session key and column 4 lines 47-52).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier c ommunications from the examiner should be directed to Devin Almeida whose telephone number is 571-270-1018. The examiner can normally be reached on Monday-Thursday from 7:30 A.M. to 5:00 P.M. The examiner can also be reached on alternate Fridays from 7:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DA

Devin Almeida
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14/24/2007

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